

PATENT ABSTRACTS OF JAPAN

(11)Publication number : **09-283801**

(43)Date of publication of application : **31.10.1997**

(51)Int.Cl.

H01L 33/00

B41J 2/44

B41J 2/45

B41J 2/455

H01L 27/15

H01L 29/74

(21)Application number : **08-088089**

(71)Applicant : **NIPPON SHEET GLASS CO LTD**

(22)Date of filing : **10.04.1996**

(72)Inventor : **KUSUDA YUKIHISA**

ONO SEIJI

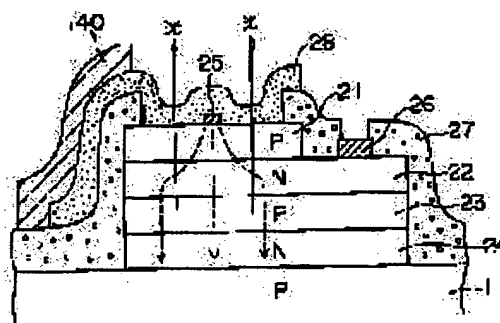
OTSUKA SHUNSUKE

(54) SURFACE LIGHT EMITTING THYRISTOR AND SELF-SCANNING LIGHT EMITTING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To improve external light emitting efficiency by providing a metal wiring in contact with a transparent conductive film, in contact with a first electrode and covering an insulating film covering a layered structure and an opening which includes the first electrode and exposes a light emitting surface.

SOLUTION: An N-type semiconductor layer 24, a P-type semiconductor layer 23, an N-type semiconductor layer 22 and a P-type semiconductor layer 21 are sequentially deposited on an N-type semiconductor substrate 1. The PNPN structure is covered with an insulating film 27 of SiO₂, and an opening is formed in a light emitting surface including an anode. An ITO film 28 is formed over the opening and the insulating film 27. An Al wiring 140 is formed on the ITO film 28 without covering the light emitting surface. Ohmic contact is made between the AuZn anode 25 and GaAs layer 21, and current flows to the cathode.



Although a part of light generated in the gate layers 22 and 23 is blocked by the fine electrode 25, most of the light passes through the transparent ITO film 28 and is taken out to the outside, which improves external light emitting efficiency.

LEGAL STATUS

[Date of request for examination] 24.02.2003

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office